THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE.

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(which is discontinued,) and is published at the same office, at five dollars per year, payable in advance.

☞ When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 12, 1834.

"PENNSYLVANIA FARMER."—We have just received the first number of a new agricultural paper, edited by G. M. Barr, near Shippensburg, Pa. called the "Pennsylvania Farmer." It is an octavo of 16 pages—26 Nos. will constitute an annual volume of 416 pages. The paper is good, and the typographical execution respectable. We wish him success; and we do not doubt but he will meet with a liberal patronage. The terms are one dollar and fifty cents per year in advance.

Every farmer ought to consider an agricultural paper as necessary an appendage to his farm as an almanac; and we will likewise say, that *he ought* to consider himself under a moral obligation to reciprocate the advantages which he may receive from the experience of others, by communicating his own experience, for the general benefit. The improvements in agriculture, though in some neighborhoods considerable, are far behind what has taken place in most of the mechanical arts. It is readily to be accounted for—the mechanical arts depend upon fixed and known laws, susceptible of calculation and mathematical demonstration; experiments may be performed in open day, determined speedily, and with precision: on the contrary, with agriculture, the whole process is carried on in the dark bowels of the earth, hidden from the eye of direct observation, and matured by the slow progress of chemical affinities. A single experiment must require several months, and in many cases several years, to be brought to any decisive determination, and in our present state of information the modus operandi remains purely conjectural. Added to this, the mechanical and commercial pursuits having been most successfully prosecuted, have best rewarded their votaries, and therefore have drawn off most of the talents and enterprise of the country into their line of pursuits, whilst the agriculturist is left to plod on in the old routine, ignorant of the principles of his art, and as tenacious of his old habits as a Mandarin of his caste. The multiplication of agricultural papers in every part of our country, will afford convenient opportunities for farmers to record the effects of experiments, and if these papers are sufficiently patronized they will ultimately be the means of raising the occupation of the farmer to that standing in the rank of his fellow men which the importance of his calling deserves.

HOGS—MACKAY BREED.—In commencing the business of a stock-breeding establishment, it was determined to spare neither pains nor expense, within the bounds of reason and sound discretion, to make the establishment as complete as could be done with the limited means at our command. It is a decided aphorism in the breeding department, that different kinds of stock, and animals of the same kind, but possessing different qualities, forming varieties, are best adapted to different locations, and different views of farmers.

It therefore becomes necessary, in order to answer all the purposes intended by such an establishment as we are desirous of rearing up, to possess all the best and most approved varieties of the several breeds, with which the superior art of breeding has lately enriched Europe and our own country.

In the prosecution of this desirable end, we have added to our stock of improved breeds of hogs another superb variety, called the *Mackay breed*. The history of these fine animals is given us by the gentleman from whom they were purchased. He says, "I purchased the hogs of Capt. John Mackay, of Boston—they are what is called the *Mackay breed*. The competition for the premium on swine, at the Brighton and Concord shows, has been of late years chiefly between this breed and the Bedfords. Capt. Mackay himself has taken on his breed over $200 at the shows in the last six years.

"When Capt M. followed the sea, he made it a rule to purchase pigs, when he saw those of peculiar good quality, in whatever part of the world they might be, and brought them home to his farm in Weston, near Boston. After he left the sea, he became engaged in rural pursuits, and resolved to see what he could do by crossing his various races of swine, which he had collected on his farm. By perseverance, directed *by good judgment*, he at length obtained what he calls a *distinct breed*, to which the public have affixed his name; and which, for aptitude *to fatten at any age*, large size, &c. are perhaps unrivalled. Capt. Mackay has now quit breeding swine, having sold out his stock.

"The specific characteristics of this breed are, head short and small; chest very broad; back tolerably broad, rather falling below, then rising above a straight line; gammons large; legs very short and tolerably small; constitutions not so hardy as the Bedford, but dispositions more easy and peaceable."

MARYLAND HORTICULTURAL SOCIETY,

August 9, 1834.

Mr. Robert Dore presented one dozen very fine Tomatoes, of the mammoth variety; and six crook-neck Squashes.

Mrs. B. I. Cohen presented three varieties of plums of very superior flavor and size.

Mr. Samuel Feast presented specimens of the King Solomon and Triumphant Dahlias, Microphylla Rose, Tea Rose, Cantua Coronopifolia, and several other flowers.

Mr. T. B. Skinner exhibited a Cocoanut with a small well-formed one in the cavity.

STATE OF COTTON IN HAVRE.

Years.	Stock 1st Jan.	Arrivals 5 first mos.	Sales 4 first mos.	Stock on 30th April.
	Bales.	Bales.	Bales.	Bales.
1834,	34000	49302	72302	11000
1833,	17000	93401	80381	30100
1832,	18000	76014	71014	23000
1831,	45000	82378	50378	27500
1830,	17500	102713	73513	46500
1829,	27000	60944	62144	25800
1828,	46500	68505	63005	52000
1827,	54000	69695	56305	37300
1826,	13500	79498	68498	24500
1825,	14500	47123	44323	17300

A SUCCESSFUL EXPERIMENT.—It is said that the experiment made by the Dutch, to test the usefulness of steam carriages on common roads, has been completely successful. The roads of Holland are well calculated for this purpose. They are level, and during the reign of Louis Bonaparte, they were greatly improved—the principal highways having been paved with hard burnt tiles placed edgeways—thus making perhaps the best highway in the universe.

THE FARMER.

AGRICULTURAL CHEMISTRY—It is scarcely possible to enter upon any agricultural investigation of the properties and value of vegetables, or of any plan for the amelioration of the soils, without finding it more or less connected with the elucidation of Chemistry.

When lands are rendered sterile from any defect in the natural constitution of the soil, the evil is to be detected only by chemical analysis; and when a system of amelioration is attempted, the responses of the retort should dictate the measures of the agriculturist. Some lands of good apparent texture, are yet sterile in an eminent degree, when common observation and common practice afford no means of determining the cause of sterility, or of removing its effect. In such cases, the land must contain some principle which is poisonous to vegetables; and the application of chemical tests may readily point out the evil, and perhaps destroy its effects.

If the salts of iron should be found to abound, they may be destroyed by lime,—if an excess of sileceous sand be present, the remedies are clay and calcareous matter,—if a deficiency of calcareous matter exist, the remedy is obvious, lime should be applied,—if there exist a superabundance of vegetable matter, paring burning and quicklime will remedy the evil,—if a deficiency of vegetable matter be the cause of sterility, manure must supply the defect,—if lands lie low and flat, they will require a soil less tenacious of moisture, and will require to be rendered more freable by the application of burnt clay, sand, &c. and to be sufficiently drained,—if, on the contrary, lands are situated on a declivity, they will require the constituent principles to be more tenacious of moisture. In all these cases to find the proper remedy by observation on crops, would require a long course of tedious and expensive experiment, which would at last be but uncertain and deceptive; but which may be readily determined, with precision and certainty, by chemical analysis.

It is our intention to occupy a part of our future columns with a course of observations on this sublime science, as applied to agriculture; and to give a description of the principal agents concerned in the production of vegetables, viz: the three principal earths, which are necessary in their due proportion, to constitute a fertile and productive soil; with their numerous combinations, and the proportions of each which are favorable to the production of particular vegetables:—These are clay, or alumina; silex, or sand; and calix, or lime. The principal constituents of all vegetables are, Oxygen, Hydrogen, and Carbon, united with more or less of the abovementioned earths, some one of which enter in small proportions into the composition of most vegetables. This is an important branch of the agricultural science, and if by our feeble efforts we can enlist more able experimenters into this wide and almost untrodden region of investigation, our end will be attained.

FARM ACCOUNTS.

Below we give an example of Farm Accounts, as kept by some of our northern farmers, which is well worth the serious attention of every agriculturist. There could not, perhaps, be a more effectual method fallen upon to break up old habits, and bad courses of farming, and to lead to new and improved methods of cultivation, than to have the Dr. and Cr. of plantation operations, presented to the eye in the form of a balance sheet. Thus keeping of such accounts is too much neglected in this part of the country. The farmer will have invested in land and stock, ten, fifteen, or twenty thousand dollars, and some twice or three times that amount, and yet open no account with his farm, that he may know whether it produces the interest of his invested capital or not. What would be thought of a merchant who was wielding a capital of equal amount, but who kept no accounts by which he would ascertain at the end of the year the state of his profit and loss? It is usual with that calculating and thrifty class of men, once in the year, to take an account of stock, and balance their accounts, that they may see how affairs stand; but the farmer leaves that trouble to his administrators—It would certainly lead to great improvements if the farmer would open a regular double entry account with every article raised on his farm. He would then know what was worth raising and what was not.

[From the Genesee Farmer.]

FARM ACCOUNTS, &c.—*Mr. Tucker*—I wish your correspondent *Ontario*, in No. 9, had given us a sample of his own manner of keeping his dairy; but as he has not, I will now send you the extract from my farm account promised you some time since.

ACCOUNT WITH A CROP OF BARLEY.

The first which I shall give you is an account of a crop of barley in 1832, which was not more than a half a crop in consequence of the injury done it by the worms. I omitted to roll the ground after sowing or after the grain come up, which I have no doubt cost me fifty dollars in the produce of the crop, as the rolling would have prevented the worms from working in the ground; but as it was, the following was the result:

Expenses.

Drawing manure,	$12,00
Spreading do	1,25
Ploughing ground,	6,75
Sowing and harrowing, 2 days,	3,00
13 bushels seed, at 8*s.*	13,00
Interest on 6 acres land,	5,25
Harvesting,	6,06
Carrying to market,	6,00
	$53,31

Proceeds.

132 bushels barley, at 5*s.* 3d.	$86,63
2 do do not clean, 4*s.*	1,00
	$87,63
Less expenses,	53,31
Nett gain,	$34,32
Or per acre	$5,72

There were 6 acres of land on which the above crop was grown; and in consequence of the time required to draw the manure on the ground, it was not sown until the 28th of April, at least 3 weeks later than it should have been put in, as I think it cannot be put in the ground too early after it is in order. You will perceive I have not charged for threshing, as I think myself well paid by the straw.

ACCOUNT WITH THE SECOND BARLEY CROP.

In the spring of 1833, I sowed 2½ acres to barley which had been highly manured, and planted to corn the preceding year. The expenses and proceeds were as follows:

Expenses.

Ploughing,	$3,00
Sowing and dragging	2,00
7 1-2 bushels seed, 5*s.*	4,69
Harvesting,	4,50
Manure,	3,00
Interest on land,	2,91
	20,10

Proceeds.

114 bushels of barley at barn, 4*s.* 2*d.*	$59,28
Less expense,	20,10
Nett gain,	$39,18
Or per acre,	15,67

The above was sown in the early part of April, and being near the barn I sowed a large quantity of seed rather than confine my fowls. I put this piece of ground to wheat last fall, and when I ploughed it the white clover was eight inches high and as thick as a mat.

ACCOUNT WITH A WHEAT CROP.

I will also give you the expenses and proceeds of my wheat crop in 1833.

Expenses.

25 days ploughing with a double team, 20*s*	$62,50
Ploughing and harrowing,	45,88
Add for parts of days not entered,	10,00
44 bushels of wheat,	44,00
Sowing do	3,00
Harvesting,	74,00
Cleaning wheat and carrying to market,	12,00
Interest on 32 acres land at $50 per acre,	112,00
	$363,38

Proceeds.

790 1-2 bushels wheat, 8s.	$790,50
Less expenses,	363,38
Nett gain,	$427,12
Or per acre	$13,34

Twenty acres of the above was a spear grass sod from which wheat was taken in 1833—half of it was ploughed in June and early in July, and ploughed again in August—the other half was turned over the last of August and first of September, and sowed on the sod. I gave the preference to late ploughing.

QUANTITY OF SEED PER ACRE.

I sowed, for one of my neighbors, 30 acres of barley last spring, and put 2, 2½, 2¾, 3 and 3½ bushels of seed per acre; and previous to harvesting I went over the whole in company with him, and examined it carefully, and would recommend for good ground not less than 2½ or more than 3 bushels per acre. If too much seed is sown, the heads are short, straw fine, and badly lodged.

EARLY AND LATE PLOUGHING.

A piece one rod wide was ploughed on the outside of a large land early in September—the rest of the land left until late in December, and then ploughed. The whole was again ploughed in the spring of 1833, and sowed to barley. The difference was at least one third in favor of the early ploughing; and as it lay by the side of the road, the difference was noticed by more than fifty persons during the summer, and the inquiry as to the cause was made almost every day. No reason could be given but the time of ploughing.

SUMMER FALLOWS UNNECESSARY.

I think a farm my be kept in good heart, and a crop taken every year from it, if the straw or manure made therefrom is returned to the land. A crop of barley will usually pay for itself and put in a crop of wheat—so you will perceive the balance in favor of a fallow crop over a naked fallow is equal to from five to eight dollars per acre.

EXPERIMENT WITH FLAX AND CARROTS.

I sowed one fourth of an acre with flax and carrots, but owing to the white clover forming a perfect sward previous to the pulling of the flax, the carrots failed; but from the size to which they attained, I am satisfied that on land which is clean and not disposed to seed itself, they would be profitable.

DEEP PLOUGHING.

My expense is heavy for ploughing, as I run the plough as deep as a good yoke of oxen and a good pair of horses can carry it, and plough one and a half acres per day in most cases, four inches deeper than the ground had ever been stirred previous to my purchasing the farm in 1832.

THE CHESS CONTROVERSY.

I do not intend to enter the controversy respecting chess, and have only two or three facts to state. In 1832, when I purchased my farm, there was a crop of wheat on the ground which had been sown from good seed without any extra cleaning, from which I received 414 bushels of wheat, and 32 bushels chess. In the fall of 1832, I sifted my seed by hand, and sifted out the small wheat and most of the chess and cockle. The product was 790½ bushels of wheat and 2 bushels chess; and the miller who purchased both crops, pronounced the crop of 1833 the cleanest; and there was more than four times the chess in this town in 1833 than there was in 1832. There is a farmer about one mile from me who has been for 20 years noted as a particular nice farmer, and by his neighbors called more nice than wise. He offered one dollar a kernel for every kernel of chess or cockle which could be found in his crop of wheat, and he sold most of a large crop for 10s. per bushel for seed last fall, when his neighbors could only get 8s.

You are at liberty to use any part of the above, if you will put it in a dress fit to be seen without altering the facts, and use it when and in what portion at a time you please. My time is so much employed that it is seldom I can get an hour to write even to my friends, and I am surprised that my neighbors can find time hang on them so heavily, but I suppose it must be that I do not work as quick as they do.

Respectfully yours, &c. S. P. RHOADS.

Skaneateles, March 11, 1834.

GAMA GRASS.

ALABAMA, July 15, 1834.

To the Editor of the Farmer & Gardener:—

SIR:—In the cultivation of *Gama Grass*, I have found that planted at two feet it is brought sufficiently close. At each cutting a slight stirring of the ground, with a common sprouting hoe, has been of much advantage in hastening the following growth. Early in the spring I have found much advantage from a liming, and a sprinkling of rotten cotton seed, which after the first cutting I dig into the soil, amongst the roots. Cowpen manure has been applied, also, at the same period, with singular effect. The capacity of this plant for standing excessive drought, is certainly one of the most valuable claims it has, and was fairly settled during the severe drought experienced in this section of the Union, in 1832. In no month was the growth more than three or four inches shorter than the preceding seasonable year. As regards its duration, I can only state, that a highly intelligent Spanish gentleman, who immediately recognised it, and with much apparent pleasure observed it an object of cultivation, answered to my enquiry respecting its durability, that a Spaniard who started in life with a well set lot of the Gama Grass, and a sound and young mule, calculated that they would all cease to exist about the same time; and that, "may you live as long as Gama," was deemed amongst the Spanish peasants in the provinces, no uncourteous sentiment.

In one light, I must continue to view this plant as invaluable, especially to the south. Whenever the agriculturists of the south can be persuaded that it is their best interest, not only to preserve their land, but to render it more productive by a spirited system of improvement, then I am persuaded this grass will be found without a rival. As a substitute for *soiling*, the key to a successful accumulation of *manure*, as also to a successful improvement of the breeds of *cattle*, so far this grass is without an equal—for quantity of vegetable matter, most agreeable to horned cattle as well as horses. The little time consumed, and the ease with which one hundred head of cattle might be fed daily, would appear incredible to those unacquainted with this forage. With the aid of this grass, no part of the union, I must contend, presents a superior resource for securing two of the most important objects to the planter, viz. the improvement of his *cattle*, and the accumulation of the Arator's "*gold dust*"—the means of enriching his lands, and the most perfect security for an ample return for the labor bestowed on his soil.

As regards the soil on which Gama ought to be cultivated, I will state a circumstance that has come under my own observation. Like Mr. Ellison, I felt confident it would be found to grow best in a soil with a good clay foundation; but to my no small astonishment, the most luxuriant growth yet produced in this state, that I have seen or heard of, has been on a pine woods hill, the soil of which is almost proverbial for being without a foundation of any kind—a quicksand bed—the ground has had for some years a garden cultivation. I have plants now in luxuriant cultivation, that has been cut monthly, during the summer, for eight years; and I am assured the growth this year is as vigorous as any preceding. June gave me the finest cutting I have ever got from it.

In propagating this grass I am aware of the difficulty of procuring the seed. This I have, however, lessened, by the plan lately adopted. It is readily discovered when the seed is ripe, at which time a touch with the finger will detach it from the ear or head. About eight o'clock every morning, with a few children, I walk through the lot, and gather the seed that is ready to fall. In this way I find no difficulty in soon obtaining a quantity. To this mode of gathering I add another facility for ploughing it, by planting the seed in a rich bed; the first year taking up, pulling the plants to pieces, as done with the shallot, and set out my ground, (previously well prepared,) intended to be a permanent lot the second year of its growth. I find the plants soon become strong and luxuriant.

AGRICOLA.

CULTURD OF RAPE SEED FOR OIL.—Colchicum or rape seed is of the greatest importance, and produces an oil which is, and has long been, much wanted for manufacturing purposes. This seed is grown abundantly in all parts of Europe, and the oil made from it is extensively used in the process of manufacturing cloth: it is, I believe, the cheapest oil they have, and takes the place of common kinds of olive oil, which the manufacturers of this country are obliged to use at a great cost. This is a matter of great importance, when it is known that to every 100 pounds of wool carded there is consumed from two to three gallons of oil. The rape seed oil is so cheap and abundant in Germany, that it is much used in adulterating linseed oil; hence the bad quality of some of the German paint oils, as the rape seed oil does not possess the dying qualities of that from flax seed, and is therefore unfit for the purposes of painting, &c.

Having been for a long time engaged in the manufacture of flax seed oil, and having made various experiments on other seeds, I have, of course, had some experience on the subject. In

relation to rape seed, I had an excellent opportunity of making full and satisfactory experiments. In the year 1822 or 1823, an English gentleman who was familiar with the culture of rape seed, and who had a farm somewhere in the neighborhood of Salem, N. J. brought to my establishment about forty bushels of rape seed, which he had produced upon his farm. The account he gives of its culture was this. Two acres were sown with this seed (broad cast) in the month of August; it sprouted, and was growing very handsomely, but late in the fall the cattle broke into it, and, as he thought, completely destroyed it. He abandoned the experiment, and suffered his cattle to roam in it all winter; but in the spring, observing it sprouting again, he put up the fence, and as he expressed himself, "let it take its chance." The two acres, with this, as he considered it, unfair experiment, produced him about forty-four bushels of seed, for which I offered him $4 per bushel, which he refused to take. I expressed it for him; and although my apparatus was not by any means perfectly adapted to the purpose, the manufacture differing in some respects, not necessary to state, from flax seed oil. I produced three and a half gallons of oil per bushel. The cake, that is, the pulp, after the oil is expressed from it, he valued highly for fattening cattle, and refused to take seventy-five cents per bushel for it; the oil he sold to a woollen manufacturer for $1,30 per gallon, thus including the cake, realizing $5,30 per bushel, out of which he paid the expense of manufacturing. It is, I am told, considered in England a profitable crop, although the price is not much, if at all, above $2 per bushel. The gentleman was in high spirits as to the result, and told me he intended to go into the culture of it more extensively; but, from what cause I do not know, I have never seen him or heard from him since—whether he failed in his experiments, died, or returned to England, I do not know. I have not, however, the least doubt that our soil and climate are well adapted to the culture of this seed; it is of the same family with the cabbage, which every one knows grows luxuriantly here. We have, besides, such a variety of soils and climates in our country, that if it will not succeed in one district, it certainly will in some other.—*Journal Franklin Institute.*

THE BREEDER & MANAGER.

[From the London Lancet.]

LECTURES ON VETERINARY MEDICINE,
Delivered in the University of London, by Mr. Youatt.

LECTURE III.—(CONTINUED.)

The Vomer.—The last bone to be described is the *vomer*. It cannot be said, strictly speaking, to form a part of the floor of the cavity of the nose, but it lies along the centre of it, denticulated with, and supported by, the suture which unites the palatine processes of the superior maxillary. It is called the vomer, from its resemblance to a ploughshare. It reaches from the palatine processes of the anterior maxillary to the sphenoid bone; and is composed of a groove which embraces and supports the cartilage that divides the nostrils. It continues in contact with the floor of the cavity through its whole extent, and when it arrives at the ductus communis, it pursues its course along the centre of it, unconnected with either of the sides, until it arrives at the æthmoid bone, on the body of which it expands, seemingly embracing it; and two processes like the ears of a cat project still more posteriorly, and terminate on the sphenoid bone. It does not, however, closely adhere to the æthmoid bone, but there is a space between them towards the centre through which nerves and blood-vessels pass to the nostrils and particularly to the cartiliaginous septum.

The difference between this bone in the horse and in *cattle*, principally consists in it articulating in the latter with the maxillary bones only, and not with the palatine, so that in them the nasal cavity is not divided through its whole extent, but there is a communication under the vomer, before we arrive at the ductus communis, and this communication is more or less extensive in proportion to the space occupied by the palatine bone in the floor of the cavity. In consequence of the vomer being thus separated from the palatines, and likewise of the depth of the palatine surfaces that line the ductus communis, the vomer seems in cattle and sheep to be deeply buried between them. The groove of the vomer is likewise deeper in cattle than in the horse, for if it denticulates only with a part of the floor, it is necessary that it should more deeply embrace the septum in order to give it sufficient support.

The Septum.—The central wall of division between the cavities of the nose is a cartilaginous, and not a bony one. It is of considerable thickness and strength, embedded in the channel of the vomer below, firmly adhering to the suture of the nasals above, and extending from the points of the nasals anteriorly, to the descending floor of the frontal sinuses, and to the cribriform plate of the æthmoid bone posteriorly. It divides the cavity of the nose into two equal parts, and is placed in the centre for the purpose of strength. I have stated that the nasal bones are liable to injury; they are occasionally fractured, but this firm and elastic cartilage placed under the crown of the arch affords a very considerable support, and a support of a peculiar nature, a gradually yielding resistance, that neutralises almost any force that can be applied.

We shall see, by-and-by, that the membrane lining the nasal cavity is a highly sensitive one, and peculiarly liable to accident and disease. The inflammation excited will rapidly spread, and the whole of the cavity may participate in it; thence would arise pain and swelling, and difficulty, or impossibility, of breathing through a passage previously nearly filled with the apparatus belonging to the sense of smell. There is one species of inflammation insidious and fatal, to which the horse and his varieties are alone exposed—viz. that of glanders. This interposition then of the septum is a wise and benevolent provision to hinder the spread of the mischief, by cutting off all communication with the neighboring parts; and also to preserve one nostril pervious, when the other is diseased or obstructed. It would appear as if there was a design in this—as if that dreadful malady, which our absurd management of this noble quadruped has entailed upon him, had been foreseen, and in some degree provided against. The horse and the ass alone are subject to glanders, and in them alone is the division between the nostrils perfect. From the separation of the vomer from the palate there is a communication between the cavities far below, the crescental border in *cattle and sheep*, while in the *hog* the perfect division scarcely extends more than half-way along the nostril. There is a sufficient division to cut off the communication of inflammation or other diseases from one nostril to another under ordinary circumstances; and where this pest of the equine race is concerned, the division is perfect. Where it is left imperfect by the separation of the vomer from the floor, and the consequent impairment of strength, there is provision made for the security of the part in the broad expanse of the forehead in the ox and the sheep, and on which the blow would be more likely to fall than on the nasals; and in the form and nature of the connexion of the nasals with the neighboring bones, and also in the strength of those bones in the hog and dog.

The Æthmoid Bones.—We arrive at length at the contents of the nasal cavity. Posteriorly and superiorly, on each side, in the common duct, but scarcely reaching into the closed nostril, is the æthmoid bone, or that portion of it which may be termed the *æthmoid cells.* On the upper and anterior part of the æthmoid bone in the *horse* there is a somewhat-curved projection or eminence, possessing no indistinct resemblance to the forepart of the comb of a cock, and hence called the *crista galli.* It supports the perpendicular plate of the skull before, and the falciform process of the dura mater behind; on either side of it, and supported by it, are two thin plates of bone pierced with innumerable holes—the *cribriform plates* of the æthmoid bone—and through which pass the pulpy filaments of the olfactory nerve.

From the bony arch which surrounds this plate, arises a pear-shaped collection of thin, porous, bony cells. I feel some difficulty in describing them. Conceive a great number of little hollow pedicles proceeding from, and forming around, the cribriform plate. As they move downward they belly out into distinct vesicles or cavities; smaller and more numerous behind; fewer in number, and larger in front, and each of them, not a simple cavity, but more or less convoluted; while the bony walls of these cells is of gossamer thinness, and porous as any gauze; all of them communicate together, and are lined and externally wrapped together by the same membrane, the whole assuming a pear-like shape, attached by its base or greater extremity, decreasing in size as it proceeds downward; the cells becoming fewer, and terminating at length in one cell, a kind of pedicle or stalk, and which passes under the superior turbinated bone, and communicates with the central meatus, and forms a kind of valve over the opening between the nasal cavity and the maxillary sinuses. Then if you add that the olfactory or first pair of nerves abuts upon these cribriform plates, and pass through their minute openings, and spreads itself over every one of these cells, but thicker and more evident to the eye near the cribriform plate, you have a tolerably correct picture of this portion of the æthmoid bone.

This bone has different degrees of development in different animals, in proportion to their acuteness of smell. The *ox* is not so domesticated an

animal as the horse. He has more occasion for acuteness of smell than the horse, and particularly in the early part of the spring, when the plants are young, and have not acquired their peculiar scent, therefore this portion of the æthmoid bone is much larger in him than in the horse. In the *sheep* it is large, and seems to fill the superior portion of the nasal cavity. It is even more developed in the *swine* than in the horse, but in the *dog* it seems to occupy the cavity almost to the exclusion of the turbinated bones. Being nearer to the cribriform plate than they are, it is probably most concerned in the sense of smell, and therefore larger where acuteness of smell is required, and in proportion as is required. It is much more fragile in the dog than in the ox, and the plates have a considerably thinner structure. The æthmoid bone of the horse or the ox may be removed from its situation with little injury, but that of the dog can scarcely be meddled without fracture.

[From Dixon's Live Stock Manager.]

Sussex and Herefordshire Varieties.

In these varieties, which are a larger sort than the former, the color is stated to be deep red, with fine hair; rather thin skins; necks and heads clean; horns neither long nor short, rather turned up at the points; well made in the hind quarters; wide across the hips, rumps, and surloins; narrow in the chines; tolerably straight in the backs, but the ribs or sides lying rather too flat; thin in the thighs, and bones not large. An ox, six years old, when fat, will weigh from sixty to an hundred stone of fourteen pounds, and often much more. The fore quarters are generally the heaviest. The oxen are mostly worked from three to six years old, sometimes to seven, when they are turned off for feeding.

Sussex.—This variety, or breed, though not so large as the Herefordshire, exceeds those of most other districts, being held in high estimation for beef and labor, and, in some degree, for milk. It is a mixed breed or sort, with which equal pains do not seem to have been taken in their improvement as with the Herefordshire kind. The cattle may be found in a state of original purity as to form, in their native district. This is a sort which is generally red or brown in color, and which shows much blood; wide and middle-horned, the points turned upwards, and backwards; of various sizes, but the larger somewhat too coarse in the bone, and of insufficient width or substance for their great depth of carcase. It is thought that they need no cross with other breeds, having all the materials of improvement within themselves, unless, perhaps, a Herefordshire cross might be useful in some, to remedy the excessive fatness. Their speed is great, and it is doubtful whether even the Devons are in that respect much superior; they are, at the same time, equal in power in the cultivation of the harvest clays, and in draught over the deepest roads; in temper, somewhat quick, like the Devons. These different varieties of the middle-horned breed of cattle, for their particular excellencies, claim the attention of breeders, and become objects of national interest, through the country, as beasts of labor.

When this variety is compared with the Devon breed, the beasts rise to much greater weight, and, of course, have far more strength for work. They are not so thin, narrow, or sharp, on the top of the shoulder, or blade bone, nor drop so much behind it; nor do they in general so much project in the point of the shoulder, nor stand so narrow in the chest; their chines are not so thin, nor are they so flat on the body or barrel; they do not hang so much in the flank; they are equal in their property of fattening, and of equal value to the grazier; their hides not quite so thin or soft, but much the same in the mellowness of their feel; not so wide on the hips, nor so clean in the head, neck, and horns, nor no small and light in the bone, but altogether a highly valuable variety of neat cattle stock.

It is, however, a sort of cattle so similar in appearance to the Devonshire kind, as scarcely to be distinguished, except by good judges; but they are more darkly colored, have more bone, are thicker in the hides, and not so lively. They are in common a very perfect sort of cattle; for though they have been described as too flat in the rib, and narrow in the chine, these are by no means peculiar faults in them, more than in other sorts of stock; while when too much rounded or flat in the above parts they are great defects, as much weight is lost in the former case, and in the latter there is a want of due thickness in the whole, which renders them deficient in the weight. In oxen of this sort the weight is usually from about 800 to 1,350 pounds and upwards.

The oxen of this kind, are considered chiefly valuable for the purpose of labor, and are not improperly formed for such use, but they have less activity and lightness in their movement than those of the Devon kind, being more strongly made in their shoulders and fore parts.

The cows are not considered large milkers in their native district, but the milk is supposed to be rich and good, both for butter and cheese, but especially the former; and the quantity, on the whole, is more than the average proportion of some districts.

[From the American Turf Register.]

THUMPS—INQUIRY AND ANSWER.

Clarksburg, Feb. 23, 1834.

Mr. Editor—Please make the following inquiries through the medium of your Register.

What is the cause of a disease in horses called thumps? the disease may not be known by that name generally, it may be known however by a noise in the horse similar to the beating of a pheasant, the intervals of each beat longer apart.

What the disease is? what part of the horse is affected?

If there is any cure, what is it?

Will rest relieve? if so, how long? and what treatment best adapted? together with any further information on the subject.

I have examined several Farriers, together with the Register, and have never seen any thing on the subject; I am not fully aware of the consequences of the disease.

By procuring this information, you will confer a favor on many, besides your subscribers here.

Yours respectfully, F. M. WILSON.

Baltimore, June 11, 1834.

Mr. Editor—As Mr. Wilson has propounded several questions, which he desires to be answered through the medium of your Register, and you having solicited answers from me, I cheerfully comply with your request, and would feel myself fully compensated could I know that my effort shall have given satisfaction.

To his first question, I answer, that thumps is the general name by which it is known, and the disease is spasmodic action of the diaphram. In most cases this muscle is the only viscera affected, and whenever this has been the only seat of disease, to which the question relates, I have never known it to kill. But it frequently accompanies inflammation of the bowels; and whenever it is known that they are combined, it will also be known that the patient is in great danger—yet in this state of combined disease, the subject sometimes meets with a fortunate result. Whether it is complicated, or only spasm, the treatment must be the same, i. e. a physic, with loss of blood; with this difference, that if inflammation attends, blood must be more freely taken:—if the subject is a common sized saddle horse, and the disease complicated, take from seven to eight quarts of blood; repeating or not as symptoms dictate. But, if it is only spasm, take from five to six quarts. If the skin is cold, put on six or eight covers.

As your readers may not know when inflammation of the bowels is present, the following symptoms will be their unerring guide: great redness of the conjunctiva, which is the membrane lining the inside of the eyelid, and redness of the gums and tongue, which will be particularly evident on squeezing the tongue. In such examinations comparison may be judiciously made between the diseased subject and healthy ones. The above are symptoms which are not acted on by veterinarians, nor are they mentioned by any author; or if they are noticed, it is done with the least stress of expression, and at the same time labor to describe symptoms which are not definite in character, for they attend both spasm and inflammation of the bowels. The above symptoms of the mouth, simple as they are, are the most characteristic: they are symptoms of inflamed bowels, by which I have been governed for more than twenty years, and I appreciate their dictation more than I do that of the pulse.

Thumps on the first attack is generally the result of severe exertion, which is the exciting cause, but which cause is expedited by some premier cause, which I believe to be some unobserved disease of the alimentary canal. This (to us) latent disease of the bowels, by prolongation of time, together with the duty which the horse is required to perform, often terminates in the loss of a valuable animal. This premier, but inert state of disease, may often be detected by a prudent owner, making himself well acquainted with the general state of his horse; and one of the most important items towards gaining just knowledge on this subject is, to make it a rule at every opportunity to examine the state of the horse's faeces, are they in too small a quantity, or is there on any of the balls a mucus when the quantity is sufficient; the owner may be assured there is an inert disease, and if the time be neglected and any exciting

cause is given, such active disease will ensue as will give much trouble, and of which the owner may think well if a cure is effected.

When the thumps have once existed, however perfect the disease to all appearance may be removed, it commonly returns on severe exertion, and sometimes with moderate use. It is seldom effectually cured.

Believing that in this essay I have given all requisite information, and hoping it may prove useful to owners in assisting them in their efforts to relieve so valuable an animal,

I remain yours, &c.

JOHN HASLAM, *Veter. Surg.*

N. B.—In the above I have said nothing about feeding; but as in this respect it may be thought I am neglectful, I deem it right to state that horses laboring under disease most commonly refuse all food except hay or grass; and as their food is of the most simple kind, if they are disposed to take it I commonly allow a little bran and oats.

I have always deemed it necessary for veterinarians to be strenuous about what the horse shall eat, and for reason of the horse while sick having little desire for food, and that being of the simplest kind. The case between a physician and his patient is far different. J. H.

THE GARDENER.

[From Nutall's Introduction to Botany.]

We have next to proceed to examine the nature of this peculiar juice, as one of the general components of plants.

The Proper Juice.—When a plant is cut through transversely, the proper juice is seen issuing from both divided surfaces, but in greatest quantity from the open orifices of the divided vessels in the part farthest from the root; a fact which is ascribable to the progression of the proper juice being inverse to that of the sap, or from the leaves towards the roots. It is very often mixed with sap, and cannot be distinguished from it by color; but in many instances it is colored or milky. Thus, if a twig of any of the species of Spurge (*Euphorbia*) be cut, the proper juice issues from the wound in the form of a resinous milky emulsion, and may be obtained in considerable quantity. This juice in the majority of plants is, as has been said, colorless; it is, however, yellow in some, as in Celandine (*Chelidonium*); red in others, as in the Bloodroot (*Sanguinaria*,) the Bloody Dock (*Rumex sanguinea*), and the Logwood tree (*Hæmatoxylon*); deep orange in the Artichoke (*Cynara Scholymus*); white, as in the Spurges, the Dandelion (*Leontodon Taraxacum*), the Fig, the Poppy, &c. blue in the root of the Black Burnet-Saxifrage (*Pimpinella nigra*); and green in the Periwinkle (*Vinca*). The color is sometimes changed by exposure to the air. Thus opium, the proper juice of the Poppy, is white and milky when it exudes from the incision, but changes to a yellowish brown hue by exposure to the air. The juice which exudes from incisions in the leaves of the Soccotrine Aloe, yields, by simple exposure, according to the statement of M. Fabroni, a very deep and lively purple dye, so permanent, and resisting so completely the action of acids, alkalies, and oxygen gas, as to offer an useful pigment in miniature painting; or as a dye for silk, which it will effect without the use of any mordant. One of the most remarkable of those milky juices is that which is yielded by the *Cow-tree* of Peru, being employed like milk as a nutritious and agreeable diet: when dry, however, it becomes like wax, acquires a dark color, and proves highly inflammable, like India Rubber.

The proper juice of plants is, *that changed state of the sap, after it has been exposed to the air and light in the leaf, and is returning from it to form the different secretions.* The organs by which the secretion is performed are probably glands; and the secreted fluids themselves are deposited in cells in different parts of the plant, particularly in the bark and the roots; these parts acquiring different medical virtues, from the matters thus lodged in them.

It is almost as impossible to obtain the proper juice of plants free from sap, as it is to procure the sap free from the proper juice; this, however, in the season in which it can be obtained in most abundance, is not so liable to be diluted or mixed with sap as at other times; and therefore it is in the warmest times in summer, that it ought to be taken for the purpose of examining its properties. In an accurate examination of the proper juice of plants, M. Chaptal found, that in no two kinds of plants does it agree, as far as its sensible qualities are considered; but as it is in the leaf that the change from sap into the proper juice occurs, so its sensible qualities are modified according to the action which takes place in that organ; and that this should differ is not surprising, if we consider the great difference in the structure of leaves. In one particular, however, Chaptal found that all the specimens he had examined agreed. When he poured into them oxygenated muriatic acid, a very considerable white precipitate fell down; which had the appearance of fine starch, when washed and dried, and did not change when kept for a length of time. It was insoluble in water, and not affected by alkalies. Two thirds of it were dissolved in heated alcohol; and these were evidently resinous, as they were again precipitated from the spirituous solvent by water. The third part, which continued insoluble in both alcohol and water, was found to possess all the properties of the ligneous fibre. In the seed lobes a greater quantity of this woody fibre was found than in the proper juice of the plant itself; a fact which accounts for the rapid growth and increase of parts of the young plant, before the roots are able to take up from the earth the principles of nutriment. The proper juices of plants, both in the seed, and in the perfected plant, contain nourishment already adapted for assimilation into the substance of the plant. But this preparation takes place either during the time, or after the sap has been exposed to the action of the light and air in the leaf; as no woody fibre is found in the ascending sap, although the principles of it are undoubtedly contained in that fluid. A new chemical combination of these principles takes place; but how this is effected, or by what means the change is produced, we know not; and it is one of those mysteries of nature, from which human ingenuity will never, perhaps, be able to remove the veil. In the same manner the blood of animals contains the components of the muscular fibres already formed; and an assimilation of it is constantly going on, without our being able to perceive it, or even to form the most distant conception of the manner in which it is performed.

The elementary principles of the proper juice of plants, and of the sap, are the same; but differ in the relative proportions. These elements are carbon, hydrogen, and oxygen. The same principles, differently modified, form all the secretions and the solid materials of the plant itself. The extraneous ingredients which some plants are found to contain, as part of their substance, such as the alkaline and neutral salts, metalic oxyds, silex, and other earths, are often probably obtained ready formed in the soil, in a state of division sufficiently minute to be suspended in water, and taken in by the absorbent vessels of the roots. This is in some degree proved by the effect of change of situation on plants which naturally grow near the sea; for most of these, when burnt, yield soda; but when they are removed from the sea-shore, and cultivated in an inland situation, potash instead of soda is procured from their ashes. Still, the siliceous epidermis of Grasses and Canes, and the flinty liquor sometimes found in the culms of the latter, can scarcely be produced in any other manner than by proper vegetable assimilation thus depositing silex from its unknown elements. As the sap undergoes the same exposure to the air and light in all plants, and one product only can be formed in each plant by this exposure, the difference of the proper juice in different plants, is a strong argument in favor of the existence of vegetable glands, independent of the undeniable proof afforded by the formation of the very different products which are deposited in different parts of the same plant. Unless there were glandular organs, one product only could be produced in each plant by the function of the leaves, and the action of light and of air on the sap. The secretions of plants formed from the proper juice are very numerous, and known under the names of *gum*, *fecula* or *starch*, *sugar*, *gluten*, *albumen*, *gelatin*, *caoutchouc* or *India Rubber*, *wax*, *fixed oil*, *volatile oil*, *camphor*, *resin*, *gum resin*, *balsam*, *extract*, *tannin*, *acids*, *aroma*, the *bitter*, the *acrid*, and the *narcotic principles*, and *ligneous fibre*. These are found in different parts of plants, without any uniformity of distribution; and although so numerous and different from each other in their sensible qualities and chemical properties, yet are they all composed of different modifications of the same elements, Carbon, Hydrogen, and Oxygen. Thus 100 parts of *gum*, according to the experiments of Gay-Lussac and Thenard, consist of

42.23 of carbon,
6.93 of hydrogen, and
50.84 of oxygen; the oxygen and hydrogen being nearly in the same relative proportion as in water.
100.00

100 parts of common *resin* consist of
75.944 of carbon,
15.156 of a combination of oxygen and hydrogen in the same proportions as they exist in water, and
8.900 of hydrogen in excess.

100.00

100 parts of *olive oil* consist of
77.215 of carbon,
10.712 oxygen and hydrogen, as in water, and
12.065 of hydrogen in excess.

100.00

The solids, also, except the earths and salts, are formed from the same principles. 100 parts of the ligneous fibre of the Beech and Oak, for example, consist of

	Beech.	Oak.
Carbon	51.45	52.53
Oxygen	42.73	41.78
Hydrogen	5.82	5.69
	100.00	100.00

and thus almost the whole of vegetable matter may be resolved into these three simple elements.

Such are the general components of vegetables, differing materially from animals in the *absence* of Azote, which being insoluble in water, never probably constitutes any part of their food.

MISCELLANEOUS.

The Weather.—The following article is from the pen of the celebrated Dr. Adam Clarke. It is not unworthy of attention.

From my earliest childhood I was bred upon a little farm, which I was taught to care for and cultivate ever since I was able to spring the rattle, use the whip, manage the sickle, or handle the spade; and as I found that much of our success depended on a proper knowledge and management of the weather, I was led to study it ever since I was eight years of age. I believe meteorology is a natural science, and one of the first that is studied; and that every child in the country makes, untaught, some progress in it: at least so it was with me. I had actually learned, by silent observation, to form good conjectures concerning the coming weather, and, on this head, to teach wisdom to those who were perfect, especially among such as had not been obliged, like me, to watch earnestly, that what was so necessary to the *family support* should not be spoiled by the weather before it was housed. Many a time, even in tender youth, have I watched the heavens with anxiety, examined the different appearances of the morning and evening sun, the phases of the moon, the scintillation of the stars, the course and color of the clouds, the flight of the crow and swallow, the gambols of the colt, the fluttering of the ducks, and the loud screams of the seamew—not forgetting the hue and croaking of the frogs. From the little knowledge I had derived from close observation, I often ventured to direct our agricultural operations in reference to the coming days, and was seldom much mistaken in my reckoning.

About twenty years ago, a table, purporting to be the work of the late Dr. Herschel, was variously published, professing to form prognostics of the weather, by the times of change, full and quarters of the moon. I have carefully consulted this table for several years, and was amazed at its general accuracy:—for though long, as you have seen, engaged in the study of the weather, I never thought that any rules could be devised liable to so few exceptions. I have made a little alteration in the arrangements, illustrated it with further observations, and have sent it that you may insert it, as it has hitherto been confined generally to a few almanacs.

A TABLE

For foretelling the Weather through all the Lunations of each Year, forever.

This table and the accompanying remarks are the result of many years actual observation; the whole being constructed on a due consideration of the attraction of the sun and moon, in their several positions respecting the earth, and will, by simple inspection, show the observer what kind of weather will most probably follow the entrance of the moon into any of its quarters, and that so near the truth as to be seldom or never found to fail.

If the New Moon—the First Quarter—the Full Moon, or the Last Quarter happens	TIME OF CHANGE.	IN SUMMER.	IN WINTER.
Between midnight and two in morning,	2 and 4 morning,	Fair.	Hard Frost, unless the wind be South or West.
2 and 4 morning,	4 and 6 "	Cold, with frequent Showers.	Snow and stormy.
4 and 6 "	6 and 9 "	Rain.	Rain.
6 and 9 "	8 and 10 "	Wind and Rain.	Stormy.
8 and 10 "	10 and 12 "	Changeable.	Cold Rain if wind be W.
At 12 o'clock at noon, and 2 P. M.	Between 2 & 4 afternoon	Frequent Showers.	Snow if east.
10 and 12 "	4 and 6 "	Very Rainy.	Cold and High Wind.
4 and 6 "	6 and 8 "	Changeable.	Snow or Rain.
6 and 8 "	8 and 10 "	Fair.	Fair and Mild.
8 and 10 "	10 and midnight,	Fair if wind N. W.	Fair.
10 and midnight,		Rainy if South or S.W.	Fair and Frosty if wind north or northeast.
		Ditto.	Rain or Snow if S. or S.W.
		Fair.	Ditto.
			Fair and Frosty.

Observations.—1. The nearer the time of the Moon's Change, First Quarter, Full and Last Quarter, are to *midnight*, the fairer will the weather be during the seven days following.

2. The space for this calculation occupies from ten at night till two next morning.

3. The nearer to *mid-day* or *noon*, the phases of the Moon happen, the more foul or wet weather may be expected during the next seven days.

4. The space for this calculation occupies from ten in the forenoon to two in the afternoon.—These observations refer principally to the Summer, though they affect Spring and Autumn nearly in the same ratio.

5. The Moon's Change—First Quarter—Full—and Last Quarter, happening during six of the afternoon hours, *i. e.* from four to ten, may be allowed by fair weather; but this is mostly dependent on the *wind*, as is noted in the table.

6. Though the weather, from a variety of irregular causes, is more uncertain in the latter part of Autumn, the whole of Winter, and the beginning of Spring; yet in the main, the above observations will apply to those periods also.

7. To prognosticate correctly, especially in those cases where the *wind* is concerned, the observer should be within sight of a good *vane*, where the four cardinal points of the heavens are correctly placed. With this precaution he will scarcely ever be deceived in depending on the table.

Such is the disinfecting and purifying nature of the Chloride of Soda, that the writer saw a neat's tongue, last Friday, taken from a pickle tub in a tainted and offensive condition, and after being washed in several tubs of pure water, and soaked in pure water for hours, it still retained its offensiveness, when a wine glass full of fresh Chloride of Soda was poured into one quart of water, and the tainted tongue washed therein for five minutes, and it became as sweet as though just taken warm from the creature's mouth; the same tongue was then washed in pure water and boiled, and a sweeter piece of meat was never served upon any table.

At this time the writer was suffering from an inflamed and swollen cheek, in consequence of a decayed tooth; it occurred to him to try the experiment on his face, he accordingly took one tea spoonful with twenty of pure water, and with a soft brush washing the inside of his cheek and the whole mouth therewith, it soon relieved the pain, and allayed the inflamation, and the swelling gradually subsided. I do not say that every thing called the Chloride of Soda will perform these things, but this was fresh made, by an excellent chemist.—*Philadelphia U. S. Gazette.*

The "*Republic of Letters*" is the title of a new literary enterprise, commenced in New York, of which the first number is before us, as a specimen. It is a quarto of sixteen pages, "got up" in a beautiful style, as to paper, type, and press work, and contains the whole of Mackenzie's celebrated tale, "The Man of Feeling," and part of the "Vicar of Wakefield"—for the sum of *six cents*. It is impossible for competition to go on much farther, in reducing the price of the classics. At this rate a man may, in these temperance times, have the contents of a whole library of the past generation, which would have cost his father the price of a farm, for what he can retrench out of his father's bill for liquors. Books, and the best of books, are brought within the reach of every one.

CONTENTS OF THIS NUMBER.

Pennsylvania Farmer, a new agricultural periodical—Hogs; Mackay breed—Maryland Horticultural Society's report—State of the Cotton Market in Havre—A successful Experiment—Agricultural Chemistry—Farm Accounts—Gama Grass—Culture of Rape Seed for oil—Youatt's 3d lecture continued; the Vomer, the Æthmoid Bones—Dixon's description of the Sussex and Hereford varieties of Cattle—Thumps in horses—The proper juice in plants—Observations on the weather by Dr. Clarke—Chloride of Soda—Republic of Letters; a new literary work—Prices Current—Advertisements.

BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BRANDY, Apple,	gallon.	$0 27	$—
Peach,	"	75	—
BEANS, white field,	bushel.	2 00	—
BEEF, on the hoof,	100lbs.	5 00	5 75
CORN, yellow,	bushel.	66	68
White,	"	66	68
COTTON, Virginia,	pound.	10	13
North Carolina,	"	11	13
Upland,	"	14	15
FEATHERS,	pound.	—	37
FLAXSEED,	bushel.	1 00	1 25
FLOUR—Best white wheat family,	barrel.	6 75	7 25
Do. do. baker's	"	6 25	6 75
Do. do. Superfine,	"	5 37	5 50
Super Howard street,	"	5 12	5 —
" " wagon price,	"	5 00	— 75
City Mills, extra,	"	5 50	5 37
Do.	"	5 37	5 50
Susquehanna,	"	5 25	—
Rye,	"	3 37	—
GRASS SEEDS, red Clover,	bushel.	—	4 50
Timothy (herds of the north)	"	3 50	—
Orchard,	"	3 00	—
Tall meadow Oat,	"	2 50	—
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	14 00	15 00
Pressed,	100 lbs	—	90
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	35
MUSTARD SEED, Foreign,	"	4 50	5 00
Domestic,	"	5 00	—
OATS,	"	30	32
OIL, linseed,	gallon.	—	90
Castor	"	1 70	1 80
PEAS, red eye,	bushel.	—	—
Black eye,	"	— —	1 00
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	3 00	—
Ground,	barrel.	1 37	—
PALMA CHRISTA BEAN,	bushel.	2 00	—
RAGS,	pound.	3	4
RYE,	bushel.	62	— —
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	4 50	6 00
" fine red,	"	6 00	8 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	22 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	3 00	4 00
Kentucky,	"	4 00	8 00
WHEAT, white,	bushel.	1 10	1 14
Red,	"	1 00	1 08
WHISKEY, 1st pf. in bbls.	gallon.	28	29
" in hhds.	"	26	—
" wagon price,	"	—	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 50	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	40 50	20 24
Three fourths Merino,	"	33 40	22 24
One half do.	"	28 33	21 22
Common & one fourth Meri.	"	25 28	18 20
Pulled,	"	28 31	18 20

Business a little more brisk in the article of Wool.

UNDERGROUND TURNIP.

THIS turnip is represented as able to resist frost in an extraordinary degree. (See description of it in the first page of this No.) For sale at the American Farmer Establishment. Price $1 per pound. jy 8

CUBA TOBACCO SEED.

JUST received from Matanzas, a few ounces of the true Cuba Tobacco Seed, from *la Vuelta Abajo*, warranted in prime order—Price $1.00 per ounce.

I. I. HITCHCOCK.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	bushel.	$0 62	$—
BACON, hams,	pound.	11	—
Shoulders,	"	—	9
Middlings,	"	—	10
BUTTER, printed, in lbs. & half lbs.	"	31	—
Roll,	"	12	18
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	4 00	7 00
COWS, new milch,	"	15 00	27 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 62	1 75
CHOP RYE,	"	—	1 62
EGGS,	dozen.	9	—
FISH, Shad, trimmed		—	—
" salted,	barrel.	6 37	—
Herrings, salted, No. 1 & 2,	"	3 87	4 00
Mackerel, No. 1, 2 & 3,	"	3 75	6 25
Cod, salted,	cwt.	—	2 75
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	8	—
ONIONS,	bushel.	—	75
POULTRY, Fowls,	dozen.	—	—
Chickens,	"	2 25	2 50
Ducks,	"	—	2 50
POTATOES, Irish,	bushel.	—	62
New,	peck.	—	—
VEAL, fore quarters,	pound.	6	—
Hind do.	"	8	—

ADVERTISEMENTS.

SEED WHEAT, RYE, &c.

THE subscriber offers his services for the procurement of Seed Wheat, Rye, &c. for those who shall provide funds in Baltimore for that purpose. He does not keep those articles on hand, and therefore can send them to those only who furnish him with the *means in advance*. For all such, however, he will use his best judgment to procure such grain as shall be ordered, charging a small commission for his agency. I. I. HITCHCOCK,
Amer. Farm. Estab.

Note—I. I. H. has made arrangements for procuring for cash, Seed Grain of the very first quality, from some of the best farms in Maryland. aug. 12

A JACKASS.

FOR SALE—A fine Jack, recently imported from Buenos Ayres, by an officer of the Navy, to whom he was presented under circumstances which render it certain that he was there considered a very valuable animal of the best blood and qualities of that country, which is famous for its fine mules. He is of middling size, between 12 and 13 hands high, only five years old, and as handsome *as any other Jackass*. The present owner having no use for him, will be glad to put him where he will be beneficial to the Agricultural interest of the country, and with that view offers to sell him for $500. Application (post paid) must be made to

I. I. HITCHCOCK,
aug. 12 Amer. Far. Estab.

A MARE IN EXCHANGE FOR CATTLE.

A GENTLEMAN of Virginia is desirous of exchanging a valuable blooded brood Mare for thorough bred Durham short horn Cattle—for sheep of the best blood, or for a good Jackass. Should any gentleman be disposed to make such a barter, he shall receive further information on application to I. I. HITCHCOCK,
aug. 12 Amer. Farm. Estab.

GRAY OR GAZE HOUNDS.

LAST September, I received from the President of the United States, for the breeding farm of this Establishment, a pair of these very beautiful and powerful animals, which had been sent out to him from Holland, by the American Consul there, and in vol. 15, of the American Farmer, page 233, I published the letter accompanying the very acceptable present. I have now the satisfaction to offer for sale four (female) puppies—their issue. They will be ready for delivery in all the month of July. Price $20 each. I. I. HITCHCOCK,
American Farmer Establishment.

WESTPHALIA GEESE.

A FEW pairs of these unrivalled Geese for sale at this establishment. They were hatched in April last, and are *now* considerably heavier than old geese of the common breed.

These geese are of the purest white, with bills, legs and eyes of a bright scarlet color. Geese of this breed have attained the enormous weight of 20 pounds, and those now offered for sale are for their age equal to any both in beauty and size that we have ever seen—Price $5, a pair. They can be sent safely in coops or crates any distance. july 29

NEW LEICESTER BUCKS.

I AM authorised to sell several fine Bucks of the Leicester or improved Bakewell breed of Sheep, and one do of the Cotswold breed, at from $75 to $100 each. Who will have one or more? I. I HITCHCOCK,
July 15. American Farmer Establishment.

THE COMPLETE FARMER.

JUST PUBLISHED and for sale at this establishment, price $1, "The Complete Farmer and Rural Economist, containing a Compendious epitome of the most important branches of Agriculture, and Rural Economy. By Thomas G Fessenden, Editor of the New England Farmer." "Agriculture is the art of arts: without it man must be a savage, and the world a wilderness."
june 24

A SUPERIOR JACK FOR SALE.

FOR SALE, by a farmer in this state, a splendid Maltese Jack, *first rate in every respect*. He is *nearly* 14½ hands high!—Eight years old last spring; quick in performance, and *efficient* to an unusal degree. 31 mares out of 34 in one instance, and in another 8 out of 9 mares belonging to one farmer proving with foal by him in 1833. He is probably in every respect one of the best Jacks ever imported into the United States. Price $1000. Address

I. I. HITCHCOCK,
jy 29 Amer. Farmer Establishment.

DEVON CATTLE.

THE subscriber has the selling of a considerable number and variety of these valuable cattle at prices *unusually low*, viz: Bulls from 75 to $100; Cows and Heifers from 60 to $80, and Calves, one year old and less, from 40 to $60. More particular information may be had by application to I. I. HITCHCOCK,
May 9. American Farmer Establishment.

THE 7-8 SHORT HORN DURHAM BULL "DUKE" IS FOR SALE.

DUKE is 2 years old, red and white, by Parson, dam Isabella; Parson is by Bishop, dam, Moss Rose, (imported in 1821, bred by Mr. Ashcroft,) got by Phenomenon—Isabella is by the celebrated imported bull Lothario, dam, Meg, by Billy Austin. Duke is of uncommon fine size and figure, pronounced by judges to have every point and appearance of a full bred. Price (to suit the times) $150.

Also—Several 3-4 blood HEIFERS, with their first calves, will be disposed of at $100 each. Application to be made (post paid) to I. I. HITCHCOCK,
May 30 American Farmer Establishment.

SKINLESS OATS.

A VERY small quantity of this celebrated new article has been obtained, at an enormous expense, and will be disposed of at this Establishment, at 50 cents per ounce. But as my stock of Gama Grass Seed is for the present, exhausted, I shall substitute this article as a return, to all subscribers to the Farmer & Gardener, on payment of their subscription. (See terms)

I. I. HITCHCOCK,
July 29. Amer. Far. Estab.

☞ See an account of this article on the first page of number 13.

TURNIP SPINACH & CABBAGE SEED.

A FULL supply of these seeds of several of the best varieties for summer and fall sowing, now on hand and for sale by I. I. HITCHCOCK,
july 1 Amer. Farm. Estab.